

Work Order ID 119020

May-06-14 8:09:43 AM

119020

Page 1

Item ID: D3215-041 Accept ***N1900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Harness Assembly
 Start Date: 5/05/14 Start Qty: 10.00 ***10*** Cust Item ID:
 Required Date: 5/05/14 Req'd Qty: 10.00 ***10*** Customer:
 Reference:

Approvals: Process Plan: MLJ Date: 140507 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3215	Rev D								

100 PURCHASING 0.00
100
 Purchasing Memo 0.00
 Purchasing Issue P/O: 24171 to Tulmar Safety Systems
 D3215-041 as per Dwg D3215
 Ship to Tulmar
 Certificate of Conformity is required

CX 14/05/12 10

110 Receive & Inspect for Damage & Mat'l Certs 0.00
110
 Packaging Memo 0.00
 Packaging Ensure certificate of conformity is attached

10X SP14-5-30

120 QC6- Inspect dimensions to drawing 0.00
120
 QC Memo 0.00
 Quality Control

DAS
 27
 9-89
4/5/20

10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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Work Order ID 119020

May-06-14 8:09:43 AM

119020

Page 2

Item ID: D3215-041 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Harness Assembly
 Start Date: 5/05/14 Start Qty: 10.00 *10* Cust Item ID:
 Required Date: 5/05/14 Req'd Qty: 10.00 *10* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location <i>ST2led</i>	0.00							
130									
Packaging	Memo	0.00							
Packaging									
									DAS 26 9-89
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

10x *14-6-02*

MLJ *140602*

MLJ *140602*

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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Picklist Print

May-06-14 8:09:42 AM

Page 1

Work Order ID: 119020

119020

Parent Item: D3215-041

D3215-041

Parent Item Name: Harness Assembly

Start Date: 5/05/14

Required Date: 5/05/14

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP A03.10.28New IssueKJ/RF
IPP B 07.06.12 ecn 940 EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3215-041P		Purchased	No			110	Each	0.0000	1	10			
D3215-041P									**	10 X 14-5-30 8P			
Harness Assembly													
D3215-3		Manufactured	No			100	Each	22.0000	1	10			
D3215-3									**	CX 14/05/12			
Webbing Tidy													
					<u>Location</u>	<u>Loc Qty</u>				<u>Loc Code</u>			
					ST033	22							
					101428	1							
					108673	21							
D3216-1		Manufactured	No			100	Each	42.0000	1	10			
D3216-1									**	CX 14/05/12			
Fitting													
					<u>Location</u>	<u>Loc Qty</u>				<u>Loc Code</u>			
					ST033	42							
					101886	8							
					108650	7							
					108674	27							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

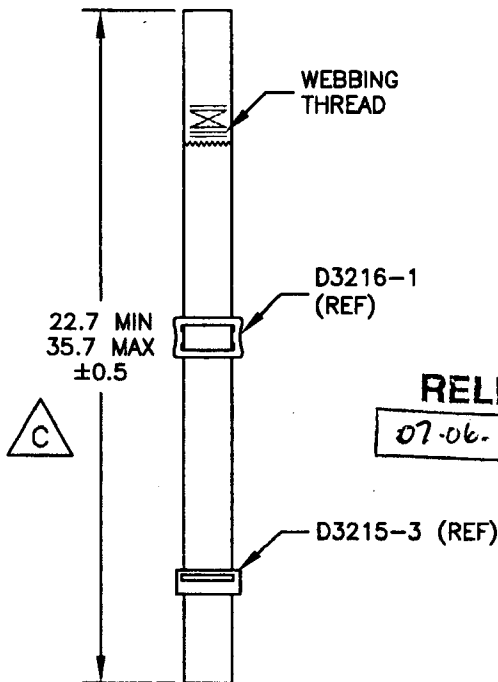
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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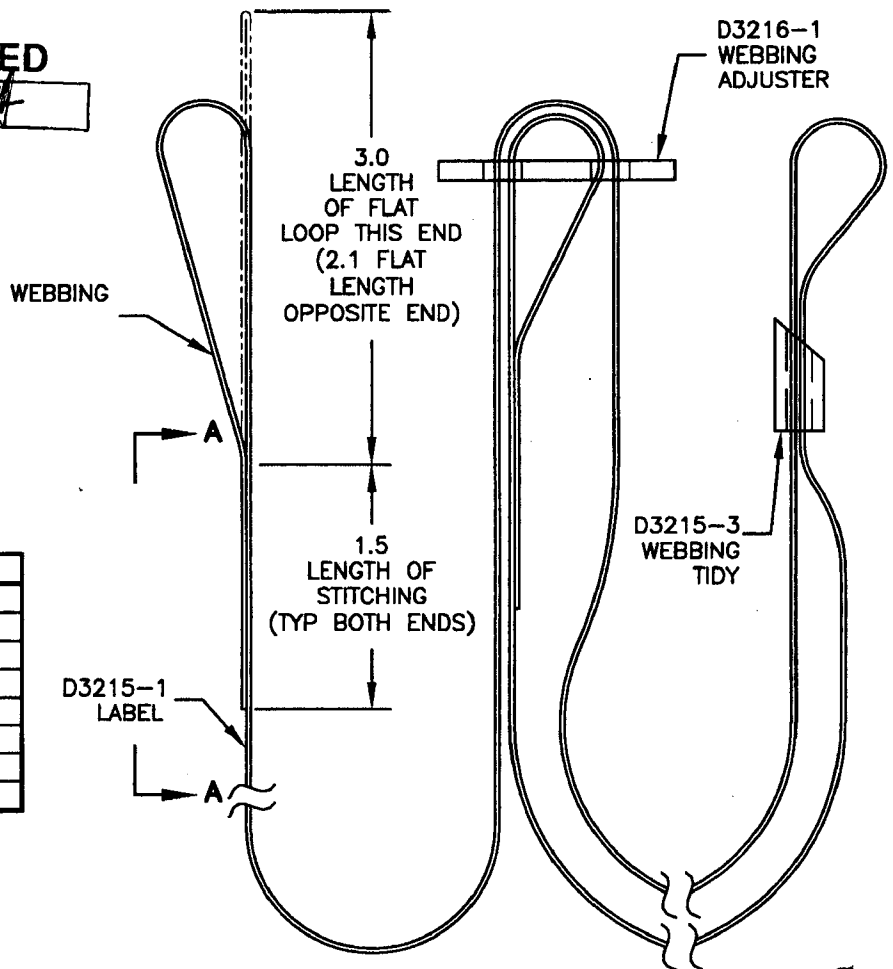
DESIGN <i>GP</i>	DRAWN BY <i>CB</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>CE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3215	REV. D SHEET 1 OF 3
DATE 07.03.27	TITLE BELT ASSEMBLY		SCALE NTS
A	03.09.19	NEW ISSUE	
B	04.01.12	AS MANUFACTURED; ADD TOLERANCE	
C	04.03.05	REDUCE LENGTH; CLARIFY STITCHING	
D	07.03.27	ADD WEBBING SUPPLIER; ADD LABEL THREAD AND MATERIAL; IN VIEW A-A, 1.4 WAS 1.8; ADD -3A AND -3B; UPDATE TOLERANCES	



ASSEMBLY DETAIL
NOT TO SCALE

PARTS LIST:

QTY	P/N	DESCRIPTION
X	D3215-041	BELT ASSEMBLY
AS REQ'D	SEE NOTE 1	WEBBING
AS REQ'D	SEE NOTE 1	WEBBING THREAD
AS REQ'D	SEE NOTE 1	LABEL THREAD
1	D3215-1	LABEL
1	D3215-3	WEBBING TIDY
1	D3216-1	WEBBING ADJUSTER



D3215-041 BELT ASSEMBLY:

- 1) MATERIAL: WEBBING = LAGRAN CANADA INC. 26472, 1.8 WIDE x 0.05 THICK BLACK POLYESTER WEBBING, CERTIFIED TO FAR 29.853A3, TENSILE STRENGTH 5700 lb MIN
OR BELT TECH CANADA INC. 27039, 1.8 WIDE x 0.05 THICK BLACK POLYESTER WEBBING, CERTIFIED TO FAR 29.853A3, TENSILE STRENGTH 6000 lb MIN
WEBBING THREAD = V-T-295 TYPE II CLASS A SIZE 3, BLACK NYLON THREAD
LABEL THREAD = V-T-295 TYPE II CLASS A SIZE F, BLACK NYLON THREAD
- 2) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
- 3) TOLERANCES ARE PER DART QSI 01B UNLESS OTHERWISE NOTED.
- 4) SEE SHEET 3 FOR VIEW A-A

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SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 119020
14-05-07
MCS



DESIGN <i>GP</i>	DRAWN BY <i>CB</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>CE</i>	APPROVED <i>H</i>	DRAWING NO. D3215	REV. D SHEET 2 OF 3
DATE 07.03.27		TITLE BELT ASSEMBLY	SCALE NTS

D3215-043 BELT ASSEMBLY:

1) MATERIAL:

WEBBING = LAGRAN CANADA INC. 26472, 1.8 WIDE
x 0.05 THICK BLACK POLYESTER WEBBING,
CERTIFIED TO FAR 29.853A3, TENSILE
STRENGTH 5700 lb MIN



OR BELT TECH CANADA INC. 27039, 1.8 WIDE
x 0.05 THICK BLACK POLYESTER WEBBING,
CERTIFIED TO FAR 29.853A3, TENSILE
STRENGTH 6000 lb MIN

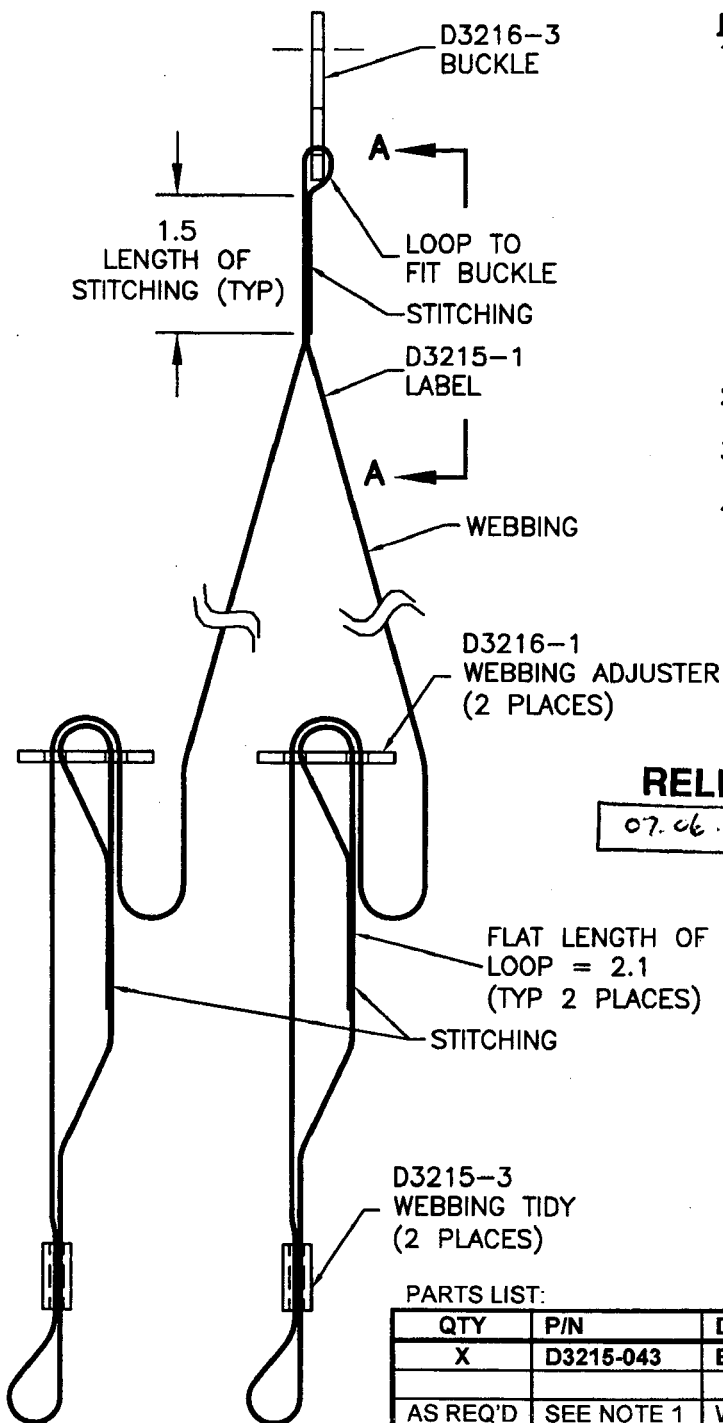
WEBBING THREAD = V-T-295 TYPE II CLASS A SIZE 3,
BLACK NYLON THREAD

LABEL THREAD = V-T-295 TYPE II CLASS A SIZE F,
BLACK NYLON THREAD

2) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE
NOTED.

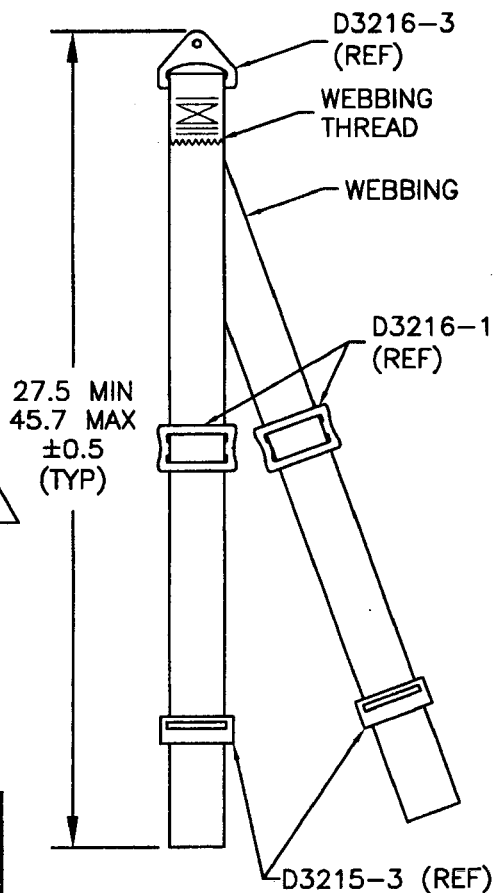
3) TOLERANCES ARE PER DART QSI 018 UNLESS
OTHERWISE NOTED.

4) SEE SHEET 3 FOR VIEW A-A



RELEASED

07.06.07



ASSEMBLY DETAIL
NOT TO SCALE

PARTS LIST:

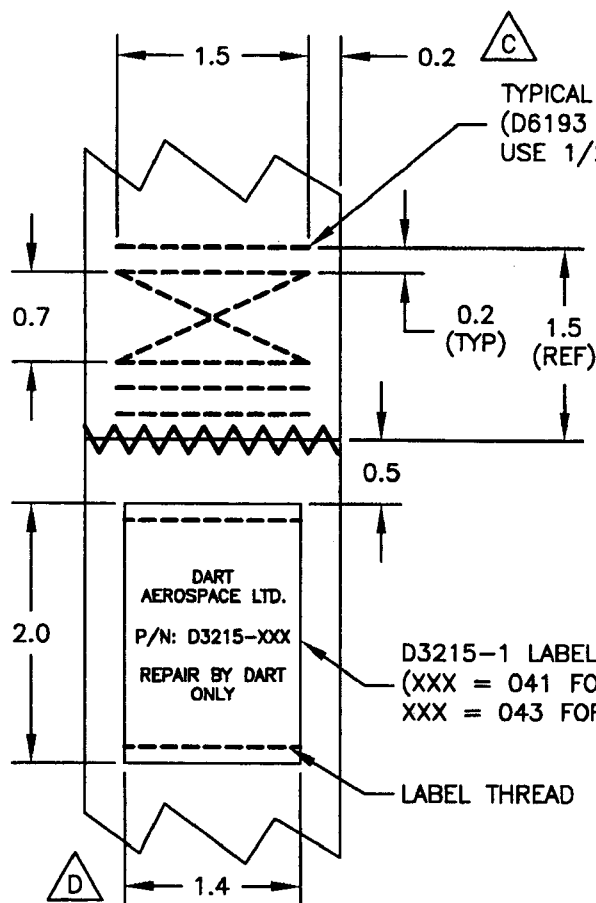
QTY	P/N	DESCRIPTION
X	D3215-043	BELT ASSEMBLY
AS REQ'D	SEE NOTE 1	WEBBING
AS REQ'D	SEE NOTE 1	WEBBING THREAD
AS REQ'D	SEE NOTE 1	LABEL THREAD
1	D3215-1	LABEL
2	D3215-3	WEBBING TIDY
2	D3216-1	WEBBING ADJUSTER

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DART

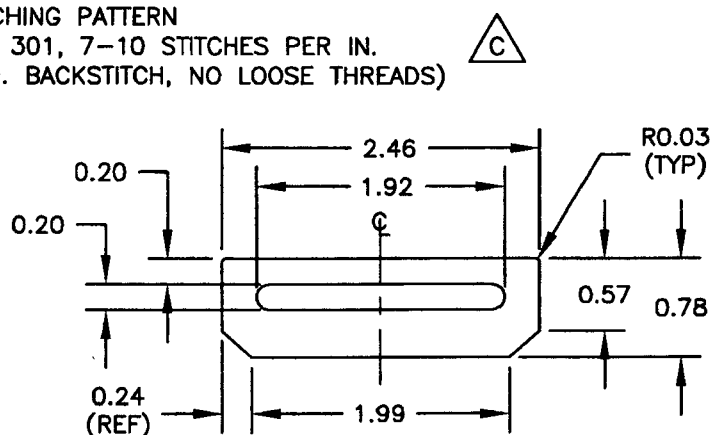
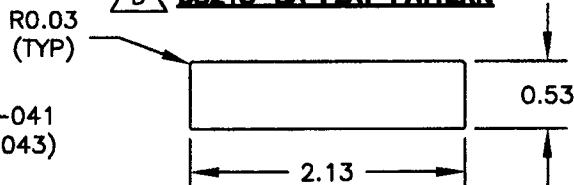
DESIGN <i>GP</i>	DRAWN BY <i>CB</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>CE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3215	REV. D SHEET 3 OF 3
DATE 07.03.27	TITLE HARNESS ASSEMBLY		SCALE 3:2

**VIEW A-A****D3215-1 LABEL:**

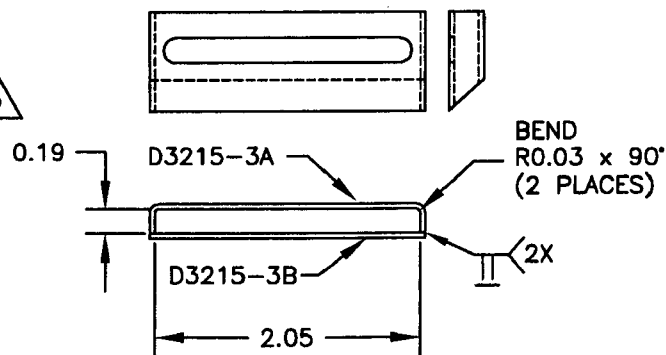
- 1) MATERIAL: WHITE TYVEK OR WHITE POLYESTER WHICH MEETS FMVSS 302
- 2) USE 1/8 BLACK LETTERING
- 3) CENTER ON BELT WIDTH

RELEASED07.06.07 *[Signature]***GENERAL NOTES:**

- 1) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

**D3215-3A FLAT PATTERN****D3215-3B****D3215-3A/-3B NOTES:**

- 1) MATERIAL: 5052-H32 ALUMINUM SHEET, 0.040 THICK PER QQ-A-250/8 OR AMS 4016 (REF DART SPEC. M5052H32S.040)
- 2) BEND D3215-3A PER D3215-3

**D3215-3 WEBBING TIDY****D3215-3 NOTES:**

- 1) WELD PER DART QSI 004
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT BLACK SANDEX (4.3.5.7) PER DART QSI 005 4.3

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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO24171

Purchase Order Date 5/12/2014

PO Print Date 5/12/2014

Page Number 1 of 2

Order From :

VC-TUL001

Ship To : DART AEROSPACE LTD

TULMAR SAFETY SYSTEMS
1123 CAMERON ST
HAWKESBURY, ON K6A 2B8
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

PAID
14/65/12

Contact Name

Vendor Phone 613 632 1282

Ship To Contact

Ship To Phone

Ship Via: VENDOR'S TRUCK

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	D3384-1P	Cyclic Sock	5/30/2014 Yes 5/30/2014		10.00 Each	\$27.45	\$274.5
	AS PER DWG D3384 REV. C B118840						
	Line Total:						\$274.5
2	D3215-041P	Harness Assembly	5/30/2014 Yes 5/30/2014		10.00 Each	\$17.00	\$170.0
	AS PER DWG D3215 REV. D B119020						
	Line Total:						\$170.0

SP 14-5-30

Note:

5/12/2014

PACKING SLIP

TULMAR

Tulmar Safety Systems Inc.
1123 Cameron Street
Hawkesbury, ON K6A 2B8 CA
Tel: 613-632-1282
Fax: 613-632-2030
MID : XOTULSAF1123HAW
email: info@tulmar.com

Packing Slip No.

51981

Ship Date

29-May-14

Bill To:

Dart Aerospace
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7. Canada

Ship to:

Dart Aerospace
1270 Aberdeen Street
Tel: 613-632-9577
Hawkesbury, ON K6A 1K7. Canada

Order number	Sales order date	Account number	Account manager
31922	13-May-14	CDART100	Helena Vandeweerd
PO number	Ship Via	Shipping Terms	
PO24171	Pick-Up	FOB HAWKESBURY	
Item No.	Quantity ordered	UOM	Qty Shipped/Returned
Description			Quantity on back order

8972
Cyclic, Sock, Colour Red/7"L x 4.125" Diam
Drawing No: D3384 (P/N D3384-1)
DWG Rev: C
Item 1
A004 A005 A007 A016 A026 A040 A041
Lot No: BATCH0000000027 Qty: 10
QA Clause: see comments

10 EA 10 ✓

8937
Belt Ass'y, 1/2" wide, Black Webbing
Drawing No: D3215 (P/N D3215-041)
DWG Rev: D
Item 2
A004 A005 A007 A016 A026 A040 A041
Lot No: BATCH0000000034 Qty: 10

10 EA 10 ✓

Shipper

Air Reed

Date:

MAY 29 2014

SP14-5-30

Certificate of Conformance

☒ See Certification Enclosed

I hereby certify that the items listed hereon have been inspected, and / or tested (as applicable), conform to all specifications and requirements detailed in the contract or purchase order. Objective evidence to support this statement is on file, and can be made available upon request.
If any questions or concerns, please contact QA Manager @ 613-632-1282 ext. 245.

Authorized Inspector

Loraine Laliberte

Date:

MAY 29 2014



J. ENNIS FABRICS

May 21, 2014

Fax To: Tulmar Safety Systems
Fax: 613-632-2030
Attention: Meagan
Fax From: Susan Nolan

Certificate of Conformance

Re: PO 27501-00 Spotlight 11 Red

The goods shipped on P/O 27501-00 are as per sampled goods. Specification as follows:
As per mill documentation, Spotlight 11 Red is in compliance with the following standards:

Width:	Product is 58 inches wide.
Roll Size:	Average roll length is 50 yards.
Weight:	Product weight is 21.18 ounces per lineal yard. Product weight is 13.15 ounces per square yard.
Content:	100% Nylon
Coating:	Product has a Polyvinyl Chloride Coating
Denier:	420 Denier
Thread Count:	Construction is 48 x 34 threads per square inch.
Protective Finish:	Product is water repellant.
Hydro Resist:	Product has hydro-resistant properties. AATCC 127-1988: 5000mm
Breaking:	CAN 2-4.2-M77 Method 9.2 C.R.E. Grab: Warp: 408 lbs, Weft: 304 lbs
Tearing:	CAN 2-4.2-M77 Method 12.3 Pendulum: Warp: 25 lbs. Weft: 17.5 lbs
Elongation:	CAN 2-4.2-M77 Method 9.2 C.R.E. Grab: Warp: 58%, Weft: 51%
Cold Crack:	Cold Crack is - 20 degree Celsius
Cautions:	Not dimensionally stable with temperature change. Product fades with prolonged U.V. Exposure. PVC can crack or peel with exposure to extreme cold or solvents. Nylon is not suitable for boat tops, travel covers, tonneau covers or other outdoor applications.

Manufacture Date: 01/21/14

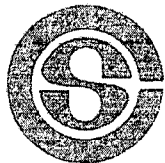
Lot Number: 430435

Sincerely,
J. Ennis Fabrics Ltd.

S Nolan

Susan Nolan
Customer Service Centre Specialist

TS # 1738/07 (SN)



cansew inc.

formerly / anciennement
Canadian Sewing Supply Ltd. / Ltée -- established / établie 1924

Manufacturers of sewing threads, / Wholesalers of elastics, Velcro, tapes, trimmings.
Fabricants de fils à coudre. / Grossistes d'élastiques, Velcro, galons, garnitures.

27 September 2011

Tulmar Safety Systems
1123 Cameron Street
Hawksbury, Ontario
K6A 2B8

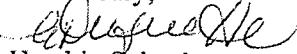
Att. Sandra Nadeau

CERTIFICATE OF COMPLIANCE

This is to certify that the item mentioned below, shipped to Tulmar Safety Systems by CANSEW INC. on 27 September 2011, has been produced in accordance with the requirements of your Purchase Order no. 21401-00 of 26 September:

-Thread, nylon, CBB69, colour #51 (red), V-T-295, type 2, class A, size E - 9.72 lb, lot # 1644502

Yours truly,


Hershie Schachter
CANSEW INC.

TSS # 2532/04. (S)

MONTREAL - Head Office/Siège social

111 Chabanel W / O H2N 1C9
Administration (514) 382-2807
Commandes/Orders (514) 382-2801
1-800-361-7722
FAX: (514) 385-5530

TORONTO

28 Apex Rd. M6A 2V2
(416) 782-1122
1-800-387-8584
FAX: (416) 782-8358

WINNIPEG

1674 Church Ave. R2X 2W9
(204) 942-4264
1-800-665-0701
FAX: (204) 947-9230

CALGARY

3932 - 29th St. N.E. T1Y 6B6
(403) 291-4494
1-800-667-4197
FAX: (403) 291-5139

VANCOUVER

1615 Venables St. V5L 2H1
(604) 682-4341
1-800-580-0737
FAX: (604) 682-4196

LORD & HODGE, Inc.

Grommets • Snap Fasteners • Vacu-Vises™

P.O. Box 737, Middletown, CT 06457-0737

TEL (860) 632-7006 FAX (860) 632-2192

Web: www.lordandhodge.com

E-mail: customerservice@lordandhodge.com

WE CERTIFY THAT MATERIAL SUPPLIED ON:

PACKING LIST #: 84640

DATED: NOVEMBER 3, 2006

P.O. #: 11975

SOLD TO: TULMAR SAFETY SYSTEMS

QUANTITY: 35 GROSS

IS IN ACCORDANCE WITH SPECIFICATIONS: #1 GROM.& WASH.-BRASS


Signature


Title

TS # 11221/05 (S)



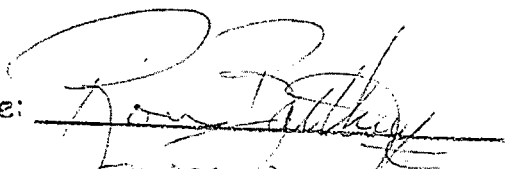
THE

DISCOVERY/LANCER GROUP1-145 Riviera Drive, Markham Ontario L3R-5J6
Tel: 905-470-0744 Fax: 905-470-9454

Certificate of Compliance

DATE: APRIL 27th 2012OUR PROD. NO.: TW-1091-4CUSTOMER P/O NO.: 23118-00CUSTOMER: Tulmar Safety Systems Inc.PRODUCT: TW MULTI PLASTIC RETARDERQTY. SHIPPED: 4 LITRESLOT NO.: 301330ROLL NO.: MANUFACTURING DATE: 2010SHELF-LIFE: 5 YRS.

We certify that the product,

TW-1091-4TW MULTI PLASTIC RETARDERwas manufactured, inspected and Conforms to specifications
applicable to the product.Signature: Title: SHIPPER

TSS 7306-RET B#10

1000000

0007-259-819

PZ:AT 2007/00/11



THE DISCOVERY/LANCER GROUP

1-145 Riviera Drive, Markham Ontario L3R-5J6
Tel: 905-470-0744 Fax: 905-470-9454



Certificate of Compliance

DATE: JAN. 24th 2013

OUR PROD. NO.: 11021 (1012G)

CUSTOMER P/O NO.: 24717-00

CUSTOMER: Tulmar Safety Systems Inc.

PRODUCT: TW MULTI PLASTIC INK

QTY. SHIPPED: 2

LOT NO.: 072811001X2

ROLL NO.:

MANUFACTURING DATE : JULY 28 2011

SHELF-LIFE : 5 YRS.

We certify that the product,

11021 WHITE

TW MULTI PLASTIC INK

was manufactured, inspected and Conforms to specifications
applicable to the product.

Signature: [Signature]

Title: SHIPPER

TSS # 7306-002 / 16



cansew inc.

formerly / anciennement
Canadian Sewing Supply Ltd. / Ltée - established / établie 1924

Manufacturers of sewing threads, / Wholesalers of elastics, Velcro, tapes, trimmings.
Fabricants de fils à coudre, / Grossistes d'élastiques, Velcro, galons, garnitures.

16 September 2008

Tulmar Safety Systems
1123 Cameron Street
Hawksbury, Ontario
K6A 2B8

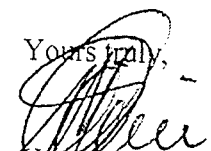
Att. Sandra Nadeau

CERTIFICATE OF COMPLIANCE

This is to certify that the items mentioned below, shipped to Tulmar Safety Systems by CANSEW INC. on 16 September 2008, have been produced in accordance with the requirements of Purchase Order no. 14743-00 of the same date:

- *-Bonded Nylon CB207 - 20.05 lb, colour black, lot # 710805, meeting the requirements of specification V-T-295, Type 2, Class A, Size 3, 3 ply
- Bonded Nylon CBB92 - 64.30 lb, colour OG-107, lot # 667896 and 587426, meeting the requirements of specification V-T-295, Type 2, Class A, Size F

Yours truly,


Helene Schachter
CANSEW INC.

MONTREAL - Head Office/Siège social

111 Chabanel W / O H2N 1C9
Administration (514) 382-2807
Commandes/Orders (514) 382-2801
1-800-361-7722
FAX: (514) 385-5530

TORONTO

28 Apex Rd. M6A 2V2
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FAX: (204) 947-9280

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3932 - 29th St. N.E. T1Y 6B6
(403) 291-4494
1-800-667-4197
FAX: (403) 291-5139

VANCOUVER

1615 Venables St. V5L 2H1
(604) 682-4341
1-800-580-0737
FAX: (604) 682-4196

info@cansew.ca

www.cansew.ca

TSS# 2524/54

TSS# 2525/41 (5)



American & Efid Inc.
Post Office Box - 507
Mount Holly, NC -28120
Certificate of Compliance

Date: 3/23/2011

Mfg. Date: 3/27/2010

Lot Id: 705150

Quantity: 43

Product: Tex 90 BONDED 'Z' NYLON FILAMENT Black AA 63002 16 OZ

Specification: A-A-59826 TPII CLA F BT92N4

Customer Order Number: 17499-00

Plys (Visual): 4

Customer: Tulmar Safety Inc.

Twist Direction: Z

Shipped To: Tulmar Safety Inc.

A&E Color: 63002 Black
AA

Description: Bright, Continuous Multifilament Nylon, Melting Point >472F; Colorless Nylon Polymer Bond; Polypropylene Spools

Characteristic	Test1	Test2	Test3	Test4	Test5	Average	Minimum	Maximum
Strength #1 (Pound)	15.2	15.7	15.6	15.7	15.8	15.6		
Strength #2 (Pound)	15.4	15.1	15.2	15.4	14.8	15.2		
Average Strength (Pound)						15.4	11.8	
Elongation #1 (Percent)	20.5	22.4	21.8	22	21.8	21.7		
Elongation #2 (Percent)	22.3	21.4	21.9	22.5	21.1	21.9		
Average Elongation (Percent)						21.8		26
Lube								
							Pass	Pass
Twist S #1 (Turns per inch)	12.2	12.2	12.2	12.2	12.2	12.2		
Twist S #2 (Turns per inch)	12.2	12.2	12.2	12.2	12.2	12.2		
Average Twist S (Turns per inch) Initial Twist						12.2		
Twist Z #1 (Turns per inch)	8.1	8.1	8.1	8.1	8.1	8.1		
Twist Z #2 (Turns per inch)	8.1	8.1	8.1	8.1	8.1	8.1		
Average Twist Z (Turns per inch) Final Twist						8.1	5.5	
Yield #1 (Yards/Pound)	4211.8					4211.8		
Yield #2 (Yards/Pound)	4114.7					4114.7		
Average Yield (Yards/Pound)						4163.2	3601	5200
Laundry #1 (Grading Scale)	5					5		
Laundry #2 (Grading Scale)	5					5		
Average Laundry (Grading Scale)						5	3	5
Dry Cleaning #1 (Grading Scale)	5					5		
Dry Cleaning #2 (Grading Scale)	5					5		

(S)

Average Dry Cleaning (Grading Scale)			
Perspiration #1 (Grading Scale)	5	5	3
Perspiration #2 (Grading Scale)	5		
Average Perspiration (Grading Scale)			
Color Fastness to Light #1 (Grading Scale)	5	5	3
Color Fastness to Light #2 (Grading Scale)	5		
Average Color Fastness to Light (Grading Scale)			

I certify that the above test were performed under my supervision and in accordance with the specification test requirements and that the reported test results are true, valid and applicable to the samples tested. I further certify that these samples were the only samples tested from the lot of components identified above.

Signed : *Joseph D. Munday*

Joseph D. Munday
Testing Director

Note : This Certificate of Compliance is the property of American & Efird Inc. and may not be reproduced except in its entirety.

Save as PDF

Certificate of Compliance No : 65 708 (Épreuve)**Pattern** : 27039**Width** : 47.000**Dye lot No** : 435125**Color** : CG008 BLACK**Meters** : For quantity, please
refer to packing list**Warp Order** :**Customer** : TULMAR SAFETY SYSTEMS
Nissan**Test Date** : 2011/03/04Legend : Y = Good - Pass
N = Fail**Customer Part Number**

Test Method	Date	Type of Test	Min. Spec.	Max. Spec.	Median	Test 1	Test 2	Test 3	
FMVSS 209	2013/10/01	Width - no load (mm)	46.000	48.000	47.760	47.760	47.710	47.830	Y
SAE J 882	2007/09/01	Thickness - original (mm)	1.140	1.400	1.197	1.190	1.197	1.198	Y
ASTM D-3775	2012/09/01	Picks per cm	7.000		7.100	7.100	7.100	7.100	Y
FMVSS 209	2013/10/01	Elongation - @ 11.1 kn load (%)		20.000	6.440	6.310	6.500	6.440	Y
FMVSS 209	2013/10/01	Tensile - original (lbs)	6,700.000		7,241.000	7,266.000	7,216.000	7,241.000	Y
FMVSS 209	2013/10/01	Tensile - hex-bar % of original	75.000		90.200	87.500	95.700	90.200	Y
AATCC TM 8	2013/01/01	Crocking "wet"	3.000		4.000	4.000	4.000	4.000	Y
AATCC TM 8	2013/01/01	Crocking "dry"	3.000		4.000	4.000	4.000	4.000	Y
AATCC TM 107	2013/01/01	Dye stability (staining) *	3.000		4.500	4.500	4.500	4.500	Y
FMVSS 302	2013/10/01	Flammability	102 mm / MINUTE MAX.			s.e.	s.e.	s.e.	Y
FMVSS 209	2013/10/01	Resistance to light (100 hrs) % of orig. (soda lime)	60.000		95.700	96.200	94.100	95.700	Y
FMVSS 209	2013/10/01	Resistance to light (100 hrs) Visual (soda lime)	2.000			4.500			Y

Specification(s) : FMVSS 209 revised on 2010-10-01

FMVSS 302 revised on 2010-10-01

Comment(s) - WE CERTIFY THAT THE TEST RESULTS SHOWN ABOVE FOR FLAMMABILITY ARE ALSO INDICATIVE OF TESTS PERFORMED AGAINST SPEC. FAR. 25-853 A

This is to certify that this product conforms to the specification(s) mentioned above and the requirement(s) outlined in the Purchase Order # and was tested at $22 \pm 3^{\circ}\text{C}$ temperature and 45-55 % relative humidity.

Not applicable for downgraded (second) material

If this document is not signed, it is to be regarded as a non-controlled version

Tested by :

Approved by :

4.10-1403E (2010-03-31)

TULMAR**Certificate of Conformance**

Tulmar P/N 22019-001	Description KIT, white/Blk Thermal. 2360 NWT 1-3/8 " web Transfer tape FMUSS 302	Dwg # /	Revision /	Qty 1 EA
Tulmar PO # 5689	Line Item #	Supplier Name / Address Avery Dennison		Supplier Packing Slip # AVY-8164474

Supplier Declarations:

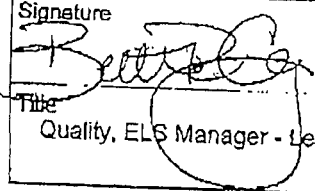
Hazardous Materials Acknowledgement	The items described below may contain, and their processing may have included, the following substances: Hexavalent Chromium; Cadmium; Beryllium; Nickel; Mercury; Lead; Asbestos; Radioactive elements YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
Country of Origin of Goods : Japan	if YES, please complete the HazMat Acknowledgement form @ www.tulmar.com	
Limited Shelf-Life	Definition: If material is consumed or transformed into final product before end of shelf-life there is no effect on final product.	These items have a limited Shelf-Life YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
Expiry date	Definition: Date after which performance will no longer be as intended - expiration is transferred to the final product.	These items have an expiry date YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>

if YES, please complete the Time Expired - Shelf-Life questionnaire @ www.tulmar.com

Additional Information (MRS#, MRA#, limitations, etc...):

Shelf life is 2 years from date of manufacture.

I hereby certify that the goods listed hereon have been inspected and/or tested, as applicable, and conform to all specifications and requirements detailed in the contract or purchase order and relevant quality clauses. Objective evidence to support this statement is on file and can be made available upon request. Should further information be required, please contact:

Signature 	Name Bethany Covey	Date (DD-MM-YYYY) 07-Aug-2013
Title Quality, ELS Manager - Lenoir facility	Email bethany.covey@averydennison.com	Phone # 828-759-3436

Form Revision 13 Aug 2012

TSS # 22019-001/06